

Amendments in the Claims

1. (Currently Amended): A node device for connecting a plurality of networks at least one of said plurality of networks having higher speed transmission lines than other transmission lines in the plurality of networks, said node device comprising:

a plurality of input units for respectively inputting data from first transmission lines installed in each of said plurality of networks;

a plurality of output units for respectively outputting data to second transmission lines installed in each of said plurality of networks;

a first switching unit for switching data input from said input units to said output units; and

a control unit transmitting switching information via the at least one network having higher speed transmission lines and at least one higher speed input unit when trouble occurs in the higher speed transmission lines shared by said plurality of networks,

wherein an input unit that inputs data from the transmission line shared by said plurality of networks to be input to the higher speed transmission lines among said first transmission lines has a higher transmission speed than other input units.

2. (Original): The node device according to claim 1, wherein at least one of said input units has transmission speeds that differ from those of the other input units, and at least one of said output units has transmission speeds that differ from those of the other output units.

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3. (Original): The node device according to claim 1, wherein the output unit that outputs data to a transmission line shared by said plurality of networks among said second transmission lines has a higher transmission speed than other output units.

4. (Currently Amended) A node device for connecting a plurality of networks, at least one of said networks having higher speed transmission lines than other transmission lines in the plurality of networks, said node device comprising:

a plurality of input units for respectively inputting data from first transmission lines installed in each of said plurality of networks;

a plurality of output units for respectively outputting data to second transmission lines installed in each of said plurality of networks;

a first switching unit for switching the data input from said input units to said output units; and

a control unit transmits switching information only via the at least one network having higher speed transmission lines when trouble has occurred in the higher speed transmission lines shared by said plurality of networks,

wherein an input unit that inputs data from the transmission line shared by said plurality of networks to be output to the higher speed transmission lines among said first transmission lines has a higher transmission speed than other input units; and

a memory unit for storing ring construction information that indicates that said first transmission lines and said second transmission lines connect to which of said plurality of networks;

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a transmission unit for producing topology information, squelch information and switching information concerning each of said plurality of networks on the basis of said ring construction information for each of the corresponding networks, and transmitting said topology information, said squelch information and said switching information via said output units; and

a second switching unit for performing processing including switching operations and bridging operations on the basis of said switching information;

5. (Currently Amended): A node device for connecting a plurality of networks, at least one of said plurality of networks having higher speed transmission lines than other transmission lines in the plurality of networks, said node device comprising:

a plurality of input units for respectively inputting data from first transmission lines installed in each of said plurality of networks;

a plurality of output units for respectively outputting data to second transmission lines installed in each of said plurality of networks;

a first switching unit for switching the data input from said input units to said output units; and

a control unit transmitting switching information only via the network having higher speed transmission lines and at least one higher speed input unit when trouble has occurred in said higher speed transmission lines shared by said plurality of networks,

wherein an input unit that inputs data from the transmission line shared by said plurality of networks to be output to the higher speed transmission lines among said first transmission lines has a higher transmission speed than other input units; and

a detection unit for detecting trouble in said first transmission lines; and

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a judgment unit for judging whether or not switching information is to be transmitted by said transmission unit to all of the networks to which said shared transmission line is connected, or to one of the networks among said networks when said detection unit detects trouble in said shared transmission line.

6. (Original): The node device according to claim 1, said node device further comprising:
a multiplexing unit for multiplexing data by using the digital wrapper method or OHBT method, and sending this data to said output units when data is switched and output to said output units from said input units that have a transmission speed lower than that of said output units.

7. (Original): The node device according to claim 1, wherein said input units input frame data that has been multiplexed by using the digital wrapper method or OHBT method, and said

